SYLLABUS
PHYS 231 SPRING 2020

INSTRUCTOR CONTACT INFORMATION

Instructor: Stan Dodds
Office: 215 Herzstein Hall
Email: dodds@rice.edu
Office Hours: Any time I'm in

COURSE OBJECTIVES AND LEARNING OUTCOMES

In this laboratory course students will observe various phenomena studied in PHYS 201/202.

By the end of the course, students will have demonstrated the ability to
- Align and manipulate simple apparatus
- Acquire reliable data illustrative of the phenomena discussed in PHYS 201/202
- Present their results in a written technical report

TEXTS AND MATERIALS

The laboratory manual is available in pdf format at http://www.owlnet.rice.edu/~dodds/phys231.html. Assistance is available from Dr. Dodds in HRZ 215.

All lab work will be done in BRK 120. You may obtain the door code from Dr. Dodds in HRZ 215. Registered students will have access outside of normal hours with a Rice ID through the main entry doors to the East wing of Brockman Hall.

The experimental work is semi self-paced, in that you may work at any time during the lab weeks listed. Each exercise will require 2-4 hours in lab to complete the measurements, plus additional time to analyze data and prepare a report.

REPORT DEADLINES

The graded work for the semester will consist of a short report on each laboratory exercise, due according to the following schedule:

Experiment	Equipment available	Report due
Standing Waves[1]	Jan. 19	Jan. 31
Reflection and Refraction	Feb. 2	Feb. 7
Polarization	Feb. 16	Feb. 21
Interferometers	Feb. 23	Feb. 28
Physical Optics	Mar. 1	Mar. 6
Optical Spectroscopy	Mar. 8	Mar. 13
The Franck-Hertz Experiment[2]	Mar. 22	Apr. 24
Particle Counting[2]	Mar. 22	Apr. 24
Laser Diodes[2]	Mar. 22	Apr. 24

1. Extra time may be needed to learn oscilloscope operation.
2. These experiments are somewhat lengthier, may require background reading, and there is only one set-up of each. Plan accordingly.

Reports are due by 5 PM on the last day of the scheduled experiment period. Note that the amount of equipment is limited, so it will be impossible for all students to undertake an experiment immediately before a deadline.

Grade Policies

Early submissions are always welcome, while late work will be penalized at the rate of 5 percentage points per day or fraction late. Reports will not be accepted more than 7 days after the due date or the first day of finals, whichever is earlier.

Rice Honor Code

In this course, all students will be held to the standards of the Rice Honor Code, a code that you pledged to honor when you matriculated at this institution. If you are unfamiliar with the details of this code and how it is administered, you should consult the Honor System Handbook at http://honor.rice.edu/honor-system-handbook/. This handbook outlines the University's expectations for the integrity of your academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process.

You may work with a partner if you wish, but it is not required. In any case, each student is expected to be familiar with all phases of the experiment and to produce an independent report of the results.

Disability Support Services

If you have a documented disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Disability Support Services (Allen Center, Room 111 / adarice@rice.edu / x5841) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

Syllabus Change Policy

This syllabus is only a guide for the course and is subject to change with advanced notice.